

In the event that the Examiner maintains his Restriction Requirement, applicant respectfully reserves the right to file a divisional application directed to his non-elected claims.

In the Action, the Examiner rejected claims 13 and 14 under 35 U.S. C. §112, noting an inadvertent typographical error in the preamble of each of these claims. These claims have been revised to specify that they further define the nonwoven fabric set forth in claim 12, from which each of claims 13 and 14 depend. It is respectfully submitted that this rejection can now be withdrawn.

In rejecting the claims under 35 U.S.C. §103, the Examiner has relied principally upon U.S. Patent No. 5,874,159, to Cruise et al., in view of U.S. Patent No. 5,098,764, to Drelich et al., and U.S. Patent No. 3,966,406, to Namiki et al. As set forth in the pending claims, it is believed that applicant's novel nonwoven fabric is clearly patentably distinct from these references, even when combined, and accordingly, the Examiner's rejection is respectfully traversed.

As discussed in the application specification, the present nonwoven fabric, and method of making same, desirably exhibits a combination of physical characteristics which promote versatile use of material. In particular, the present nonwoven fabric can be employed in a number of applications in which woven textile fabrics have typically been used, including apparel applications. As will be appreciated, such applications not only require drapeability and softness, but a high degree of abrasion resistance, strength, tear resistance, and colorfastness.

In the Action, the Examiner has principally relied upon the Cruise et al. reference. However, a careful study of this reference shows that it neither teaches

nor suggests the present nonwoven fabric as claimed, and in particular, fails to disclose a fabric exhibiting the level of abrasion resistance specifically set forth in the pending claims (i.e., a Martindale Abrasion Value of at least 50,000 cycles). This is because Cruise et al. contemplates a fabric structure which is distinctly different from that set forth in the pending claims, a structure which is not believed to be capable of exhibiting the claimed level of abrasion resistance.

As stated at column 2, lines 16 *et seq.*, Cruise et al. contemplates:

The composite fabric structure comprises two layers of fabric bonded together such that the bonding is done with *discrete bonding points between the layers* and relatively closely spaced to one another. In particular, the bonds encompass portions of fibers from both layers of fabric *without substantially penetrating through to the outer surface* of at least one of the layers of fabric (emphasis supplied).

As further stated in Cruise et al., at column 4, lines 48 *et seq.*, the nature of the bonding is further discussed:

A further observation is that it is also important that the connections between adjacent globules are substantially broken or *nonexistent*. The inventive fabrics tend to exhibit harsher qualities after calendering and before washing. . . . If the globules were substantially interconnected, they would tend to make the composite fabric stiffer. The discrete bonding points do not make a continuous film layer in the middle of the fabric but are in discrete globules that neither connect with each other *nor penetrate to the surface of the fabric*. The surface layers, while hydroentangled enough to interconnect the filaments and maintain surface integrity and strength are, nevertheless *free to move enough* to give a soft, drapeable, flexible material, particularly after washing or mechanical action. (Emphasis supplied.)

As will be plainly evident from study of the Cruise et al. patent, there is a distinct absence of any discussion of enhanced *abrasion resistance*. Notwithstanding the extensive test data set forth in Tables I through IX, *no abrasion resistance data is set forth*. It is believed that this is because fabrics formed in accordance with the teachings of Cruise et al. are incapable of exhibiting the same level of abrasion resistance as the present fabrics, as claimed, because Cruise et al. specifically contemplates the provision of binder at *discrete globule locations*, with *isolation* of the binder globules *between* the fabric layers and away from the fabric surface. As such, this type of fabric is incapable of exhibiting the same level of abrasion resistance as a fabric formed by *substantially uniform, saturation application of a pre-dye finish*, as claimed.


Thus, it is respectfully maintained that Cruise et al. teaches away from the present nonwoven fabric as claimed, with the shortcomings in the teachings of Cruise et al. particularly evident by the absence of any teachings or suggestions that the fabric disclosed therein exhibits the level of abrasion resistance which is specifically achieved by the present fabric.

Applicant acknowledges that Drelich et al. is directed to the use of three-dimensional image transfer devices for fabric formation, but it is respectfully maintained that this patent does not overcome the deficiencies in the teachings of Cruise et al. in teaching or suggesting the present nonwoven fabric. The Namiki et al. patent is of general interest for its teachings relating to jet dyeing, but again, this reference clearly fails to teach or suggest applicant's claimed nonwoven fabric

construct, even when Namiki et al. is combined with the teachings of Cruise et al.
and Drelich et al.

In view of the foregoing, formal allowance of claims 12-14, and 16-22 is believed to be in order and is respectfully solicited. Should the Examiner wish to speak with applicant's attorneys, they may be reached at the number indicated below.

Respectfully submitted,

By 
Stephen D. Geimer, Reg. No. 28,846

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
Citicorp Center, Suite 3800
500 West Madison Street
Chicago, Illinois 60661-2511
312/876-1800

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service with sufficient postage at First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on **November 14, 2002**.



- Sub D1
- A1
12. A durable nonwoven fabric, comprising:
- a) a precursor web comprising polyester fibers;
 - b) said precursor web being imaged and patterned by hydroentanglement on a three-dimensional image transfer device to form a nonwoven fabric;
 - c) said nonwoven fabric receiving a substantially uniform, saturation application of a pre-dye finish followed by a curing step;
 - d) dyeing of said nonwoven fabric;
 - e) the resulting nonwoven fabric exhibiting a final basis weight of between about 2.0 ounces and 6.0 ounces, a Martindale Abrasion Value of at least 50,000 cycles, a combined drape value of less than 2.45 grams force per gram fabric weight and a combined bend value of less than 0.42 milligram-centimeter per mil thickness.
13. A durable nonwoven fabric as in claim 12, said precursor web comprising layers of polyester fibers.
14. A durable nonwoven fabric as in claim 12, said precursor web comprising layers of polyester and nylon fibers